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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/005,830	11/08/2001	Gregory J. McCollum	1704A1	1069
7590	05/06/2004		EXAMINER	
PPG Industries, Inc. One PPG Place Pittsburgh, PA 15272			MAYEKAR, KISHOR	
			ART UNIT	PAPER NUMBER
			1753	
DATE MAILED: 05/06/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/005,830	MCCOLLUM ET AL.	
	Examiner Kishor Mayekar	Art Unit 1753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is FINAL.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) Claim(s) 1-114 is/are pending in the application.
- 4a) Of the above claim(s) 57-114 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-56 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All
  - b) Some \*
  - c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4/02, 3/03 & 10/03.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

## DETAILED ACTION

### *Election/Restrictions*

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-56, drawn to an electrocoating process, classified in class 204, subclass 471+.
  - II. Claims 57-59, drawn to a multi-layer composite coating, classified in class 428, subclass 462.
  - III. Claims 98-111, drawn to a curable coating composition, classified in class 428, subclass 462.
  - IV. Claims 112-114, drawn to an electrocoating process, classified in class 204, subclass 471+.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions of Groups I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown:
  - (1) that the process as claimed can be used to make other and materially different

product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product can be made by a non-electrocoating process.

3. Inventions of Groups IV and III are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by a non-electrocoating process.

4. Inventions of Groups I and IV are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different functions: one with a specified partially blocked aliphatic polyisocyanate curing agent and the other with a specified cationic salt group-containing resin.

5. Inventions of Groups II and III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions: one with a specified partially blocked aliphatic polyisocyanate curing agent and the other with a specified cationic salt group-containing resin.

6. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for either of Groups II-IV, restriction for examination purposes as indicated is proper.

7. During a telephone conversation with Attorney D. Altman on April 21, 2004 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-56. Affirmation of this election must be made by applicant in replying to this Office action. Claims 57-114 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

8. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

*Claim Rejections - 35 USC § 103*

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2000-281943A in view of either FAUL et al. (5,258,460 or SCHUPP et al. (5,096,555). The reference's invention, a reference cited by Applicant with an

English translation, is directed to high weatherability electrodeposited paint composition and coating method. The reference discloses that the method comprises all the steps as claimed (page [0012] in page 6 of the translation through paragraph [0018] in page 8; paragraph [0067] in page 16 through paragraph [0071] in page 17; paragraph [0038] through [0040] in page 11; and Examples in page 23). The differences between the reference and the above claims are the reference is silent on the position of the amino groups is pendant from or in the terminal position of the polymeric backbone and the transmission of the cured top coat.

As to the former, FAUL discloses in an electrocoating process that "standard electrocoating baths generally contain polymers with pendant primary, secondary or tertiary amino groups as the principal resin component" (col. 3, lines 45-51). SCHUPP shows in an electrocoating process the use of aminoepoxy resins being the reaction product of epoxy-containing resins having preferably terminal epoxy groups with amino groups and/or hydroxyl groups (col. 3, lines 17-21). The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the reference's teachings as suggested by either FAUL or SCHUPP because the selection of any of

known equivalent cationic amine salt-group containing resins would have been within the level of ordinary skill in the art.

As to the latter, since the reference shows the use of the clear to coat, it appears that the reference's cured top coat would have the recited transmission, in absence of evidence to the contrary.

As to the subject matter of claims 16-19, the selection of any of known equivalent blocking agents would have been within the level of ordinary skill in the art.

11. Claims 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP '943 as modified by FAUL '460 or SCHUPP '555 as applied to claims 1-22 above, and further in view of CORRIGAN et al. (5,385,962). The difference between the references applied above and the instant claims is the heating in a specified atmosphere. CORRIGAN, another reference cited by Applicant, shows the heating can be done by any convenient method such as by baking in oven or with banks of infrared heat lamps. As such, since the heating with the latter would have in the atmosphere of the type recited (that is no combustion evolved), the selection of

any of known or equivalent heatings would have been within the level of ordinary skill in the art.

12. Claims 26-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP '943 in view of CORRIGAN '962 and either FAUL '460 or SCHUPP '555 for the same reasons as set forth the preceding paragraphs 10 and 11.

13. Claim 49 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP '943 in view of CORRIGAN '962 and either FAUL '460 or SCHUPP '555 as applied to claims 1-22 above, and further in view of ARMSTRONG et al. (5,277,709). The difference between the references as applied above and the instant claim is the provision of a source of yttrium in the coating composition. ARMSTRONG shows the above limitation in an electrocoating process (see abstract; col. 3, lines 41-46; and col. 6, lines 52-60 ). The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the reference's teachings as suggested by ARMSTRONG because this would result in a coated substrate with high resistance to corrosion.

14. Claims 50, 51 and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP '943 in view of TAKAHASHI et al. (4,621,420). JP '943 is applied as above. The difference between JP '943 and the above claims is the inclusion in the circuit of a non-ferrous anode. TAKAHASHI shows that it is known to avoid using materials which release of metal ions for the anode in an electrocoating process (see background of the invention in cols. 1 and 2). The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the reference's teachings as suggested by TAKAHASHI's teachings because this would prevent the metal ions dissolved out from the anode and get mixed into the coating composition and therefore the resulting coating suffers from poor anti-corrosion property or coarse coating surface.

15. Claims 52-53 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP '943 in view of TAKAHASHI '420 as applied to claims 50, 51 and 54 above, and further in view of CORRIGAN '962. The differences between the references as applied above and the instant claims is the heating in a specified

atmosphere as claimed in claims 52 and 53 and the provision of an extra material in the composition as recited in claim 55.

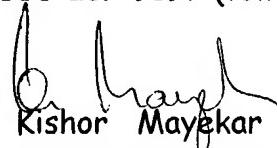
As to the former, CORRIGAN shows the heating can be done by any convenient method such as by baking in oven or with banks of infrared heat lamps. As such, since the heating with the latter would have in the atmosphere of the type recited (that is no combustion evolved), the selection of any of known or equivalent heatings would have been within the level of ordinary skill in the art.

As to the latter, CORRIGAN shows the use of a hindered amine light stabilizer in the coating composition (see abstract). The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the reference's teachings as suggested by CORRIGAN because this would in coating composition having improved delamination resistance.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kishor Mayekar whose telephone number is (571) 272-1339. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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